

CLAIMS

1. A method for separating single stranded nucleic acid material from double stranded nucleic acid material comprising contacting a mixture of the both with a liquid comprising a chaotropic agent and a nucleic acid binding solid phase,
- 5 whereby the liquid has a composition such that double stranded nucleic acid binds to the solid phase and a substantial amount of single stranded nucleic acid does not and separating the solid phase from the liquid.
2. A method according to claim 1 whereby the liquid
- 10 comprises at least 100 mM EDTA and comprising a guanidinium salt, preferably guanidinium thiocyanate as a chaotropic agent.
3. A method according to claim 1 or 2, whereby the solid phase is silicium based.
- 15 4. A method according to claim 3 whereby the solid phase is silica.
5. A method according to claim 4 whereby the silica is in the form of particles having a size between 0.05 and 500, preferably 0.1 and 200 μm .
- 20 6. A method according to anyone of the foregoing claims whereby the solid phase is separated from the supernatant by centrifugation.
7. A method for isolating single stranded nucleic acid material from a mixture of nucleic acid material, comprising
- 25 the steps of subjecting the mixture to a method according to anyone of the foregoing claims and treating the supernatant containing the single stranded nucleic acid material with a second liquid comprising a chaotropic agent and a second nucleic acid binding solid phase, whereby the second liquid
- 30 has a composition such that the resulting mixture of supernatant and second liquid allow for binding of the single stranded nucleic acid material to the second solid phase.
8. A method for amplifying single stranded nucleic acid material comprising the steps of hybridizing the single

- stranded nucleic acid with primers and elongating the probes using an enzyme which adds nucleotides to the primer sequence using the hybridized single strand material as a template, whereby at least one primer comprises a random hybridizing sequence and an amplification motif.
- 5 9. A method according to claim 8 whereby at least one primer comprising a random hybridization sequence and an amplification sequence further comprises a label.
- 10 10. A method according to claim 8 or 9 whereby at least one primer comprising a random hybridizing sequence and an amplification motif further comprises a direct sequencing motif.
- 15 11. A method for isolating and amplifying single stranded nucleic acid material originally present in a mixture of nucleic acids comprising subjecting the mixture to a method according to anyone of claims 1-7 followed by subsection of the isolated material to a method according to anyone of claims 8-10.
- 20 12. A method according to any one of the foregoing claims whereby the single stranded nucleic acid material comprises mRNA.
13. A method according to claim 12 whereby the mRNA is converted into cDNA.
- 25 14. A method according to anyone of the foregoing claims comprising a gel electrophoresis step.
15. A method according to anyone of the foregoing claims followed by a sequencing step.